

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019540**Date Inspected:** 28-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Qiu Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

Repair welding of weld joint no: SEG3020E-056 [Bottom Plate (BP) 3093A to Floor beam (FB) 3343A, complete joint penetration (CJP) weld at panel point (PP) 128.3]. The welder is identified as 066398 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2734 Rev-1.

Repair welding of weld joint no: SEG3020D-052 [Bottom Plate (BP) 3092A to Floor beam (FB) 3343A, complete joint penetration (CJP) weld at panel point (PP) 128.3]. The welder is identified as 066038 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC

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was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2734 Rev-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AY-041 [Floor Beam (FB) 3336A to stiffener of Side Plate (SP) 3133A, CJP weld at panel point (PP) 128]. The welder is identified as 067609 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-P-2213-Tc-U4b-FCM-1.

Repair welding of weld joint no: SEG3020BB-019 [Vertical Shear Plate, Sub Assembly (SA) SA3445A to Bottom Plate (BP) 3088A, complete joint penetration (CJP) weld]. The welder is identified as 067942 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2752 Rev-0.

During random in process inspection this QA inspector observed that ZPMC NDT personnel performing Ultrasonic Testing (UT) on the weld joint SEG3020K-026 joining Floor Beam Sub Assembly SA3410A to the Bottom Plate (BP) 3092A at Panel point (PP) 127.3. During inspection this weld joint found rejectable indication.

During random in process inspection this QA inspector observed that ZPMC NDT personnel performing Magnetic Particle Testing (MT) on the excavated area of repair locations of the weld joint SEG3020Y-022 joining Floor Beam (FB) 3327A to Longitudinal Diaphragm (LD) 3051A at Panel Point (PP) 127. Attached photograph provide additional details.

OBG Seg 13AW

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3013M-170 [RS3434A stiffeners on Side Panel (SP) 3099A to Floor Beam (FB) 3180A, complete joint penetration (CJP) weld at Panel Point (PP) 118.35]. The welder is identified as 067707 and was observed welding in the 3G position. ZPMC Quality Control (QC) was identified as Zhang Ling. The welding variables recorded by QC appeared to comply with welding procedure specification (WPS): B-P-2213-TC-U4b-FCM-1.

The SMAW process on weld joint no: SEG3013M-167 (RS3434A stiffener to RS3433D stiffener on SP 3099A, CJP weld at PP118.35). The welder is identified as 067707 and was observed welding in the 3G position. ZPMC QC was identified as Zhang Ling. The welding variables recorded by QC appeared to comply with WPS: B-P-2213-B-U2-FCM-1.

OBG Seg 13BW

The SMAW process on weld joint no: DP3148-243 (X4089D to X4128B stiffener, CJP weld at PP122.5). The welder is identified as 037840 and was observed welding in the 3G position. ZPMC QC was identified as Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-P-2213-TC-U4b-FCM-1.

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
